Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, and the balance being copper and unavoidable impurities,

wherein a difference in temperature between liquidus and solidus lines is 30℃ or more.

2. (currently amended) A copper base alloy essentially consisting of:

8 to 45 wt% of zinc;

0.2 to 12.0 wt% of tin;

80 to 1000 ppm of carbon;

one or more elements which are selected from the group consisting of ~~0.01 to 10.0 wt% of aluminum,~~ 0.01 to 3.0 wt% of silicon, 0.01 to ~~15.0~~ 0.3 wt% of nickel, 0.01 to 5.0 wt% of iron, 0.01 to 5.0 wt% of chromium, 0.01 to 2.5 wt% of cobalt, 0.001 to 4.0 wt% of bismuth, 0.05 to 4.0 wt% of lead, 0.01 to 2.0 wt% of magnesium, 0.01 to 0.5 wt% of phosphorus, 0.01 to 0.1 wt% of calcium, 0.01 to 0.1 wt% of yttrium, 0.01 to 0.1 wt% of strontium, 0.01 to 1.0 wt% of beryllium, 0.01 to 0.5 wt% of zirconium, 0.1 to 3.0 wt% of niobium, 0.1 to 3.0 wt% of vanadium, 0.1 to 3.0 wt% of hafnium, 0.1 to 3.0 wt% of molybdenum and 0.1 to 3.0 wt% of tantalum, ~~the total amount of said elements being 50 wt% or less,~~ and

the balance being copper and unavoidable impurities,

wherein a difference in temperature between liquidus and solidus lines is 30℃ or more.

3-18 (canceled).

19. (currently amended) A copper base alloy essentially consisting of:

8 to 45 wt% of zinc;

0.2 to 12.0 wt% of tin;

80 to 1000 ppm of carbon;

one or more elements which are selected from the group consisting of 0.01 to 3.0 wt% of silicon, 0.01 to ~~15.0~~ 0.3 wt% of nickel, 0.01 to 5.0 wt% of chromium, 0.01 to 2.0 wt% of magnesium and 0.0005 to 0.5 wt% of boron~~, the total amount of said elements being 50 wt% or less~~; and

the balance being copper and unavoidable impurities,

wherein a difference in temperature between liquidus and solidus lines is 30℃ or more.

20. (currently amended) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, 0.01 to 3.0 wt% of silicon, and the balance being copper and unavoidable impurities,

wherein a difference in temperature between liquidus and solidus lines is 30℃ or more.

21. (new) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, 0.01 to 2.0 wt% of magnesium, and the balance being copper and unavoidable impurities,

wherein a difference in temperature between liquidus and solidus lines is 30℃ or more.

22. (new) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, 0.01 to 0.3 wt% of nickel, and the balance being copper and unavoidable impurities,

wherein a difference in temperature between liquidus and solidus lines is 30℃ or more.

23. (new) A copper base alloy as set forth in claim 1, wherein $X + 5Y \leqq 50$, assuming that the content of zinc is X (wt%) and the content of tin is Y (wt%).

24. (new) A copper base alloy as set forth in claim 2, wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the total amount of said one or more elements is Z (wt%).

25. (new) A copper base alloy as set forth in claim 19, wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the total amount of said one or more elements is Z (wt%).

26. (new) A copper base alloy as set forth in claim 20, wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the content of silicon is Z (wt%).

27. (new) A copper base alloy as set forth in claim 21, wherein

$X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the content of magnesium is Z (wt%).

28. (new) A copper base alloy as set forth in claim 22, wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the content of nickel is Z (wt%).

29. (new) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, and the balance being copper and unavoidable impurities,

wherein a phase of the copper base alloy other than an alpha phase has a volume percentage of 20 % or less.

30. (new) A copper base alloy as set forth in claim 29, wherein said phase of the copper base alloy other than the alpha phase has a melting point of 800 ℃ or less.

31. (new) A copper base alloy as set forth in claim 29, wherein $X + 5Y \leqq 50$, assuming that the content of zinc is X (wt%) and the content of tin is Y (wt%).

32. (new) A copper base alloy essentially consisting of:

8 to 45 wt% of zinc;

0.2 to 12.0 wt% of tin;

80 to 1000 ppm of carbon;

one or more elements which are selected from the group consisting of 0.01 to 3.0 wt% of silicon, 0.01 to 0.3 wt% of nickel, 0.01 to 5.0 wt% of iron, 0.01 to 5.0 wt% of chromium, 0.01 to 2.5 wt% of cobalt, 0.001 to 4.0 wt% of bismuth, 0.05 to

4.0 wt% of lead, 0.01 to 2.0 wt% of magnesium, 0.01 to 0.5 wt% of phosphorus, 0.01 to 0.1 wt% of calcium, 0.01 to 0.1 wt% of yttrium, 0.01 to 0.1 wt% of strontium, 0.01 to 1.0 wt% of beryllium, 0.01 to 0.5 wt% of zirconium, 0.1 to 3.0 wt% of niobium, 0.1 to 3.0 wt% of vanadium, 0.1 to 3.0 wt% of hafnium, 0.1 to 3.0 wt% of molybdenum and 0.1 to 3.0 wt% of tantalum, and

the balance being copper and unavoidable impurities,

wherein a phase of the copper base alloy other than an alpha phase has a volume percentage of 20 % or less.

33. (new) A copper base alloy as set forth in claim 32, wherein said phase of the copper base alloy other than the alpha phase has a melting point of 800 ℃ or less.

34. (new) A copper base alloy as set forth in claim 32, wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the total amount of said one or more elements is Z (wt%).

35. (new) A copper base alloy essentially consisting of:

8 to 45 wt% of zinc;

0.2 to 12.0 wt% of tin;

80 to 1000 ppm of carbon;

one or more elements which are selected from the group consisting of 0.01 to 3.0 wt% of silicon, 0.01 to 0.3 wt% of nickel, 0.01 to 5.0 wt% of chromium, 0.01 to 2.0 wt% of magnesium and 0.0005 to 0.5 wt% of boron; and

the balance being copper and unavoidable impurities,

wherein a phase of the copper base alloy other than an alpha phase has a volume percentage of 20 % or less.

36. (new) A copper base alloy as set forth in claim 35, wherein said phase of the copper base alloy other than the alpha phase has a melting point of 800 ℃ or less.

37. (new) A copper base alloy as set forth in claim 35, wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the total amount of said one or more elements is Z (wt%).

38. (new) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, 0.01 to 3.0 wt% of silicon, and the balance being copper and unavoidable impurities,

wherein a phase of the copper base alloy other than an alpha phase has a volume percentage of 20 % or less.

39. (new) A copper base alloy as set forth in claim 38, wherein said phase of the copper base alloy other than the alpha phase has a melting point of 800 ℃ or less.

40. (new) A copper base alloy as set forth in claim 38, wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the content of silicon is Z (wt%).

41. (new) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, 0.01 to 2.0 wt% of magnesium, and the balance being copper and unavoidable impurities,

wherein a phase of the copper base alloy other than an alpha phase has a volume percentage of 20 % or less.

42. (new) A copper base alloy as set forth in claim 41, wherein said phase of the copper base alloy other than the alpha phase has a melting point of 800 ℃ or less.

43. (new) A copper base alloy as set forth in claim 41, wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the content of magnesium is Z (wt%).

44. (new) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, 0.01 to 0.3 wt% of nickel, and the balance being copper and unavoidable impurities,

wherein a phase of the copper base alloy other than an alpha phase has a volume percentage of 20 % or less.

45. (new) A copper base alloy as set forth in claim 44, wherein said phase of the copper base alloy other than the alpha phase has a melting point of 800 ℃ or less.

46. (new) A copper base alloy as set forth in claim 44, wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the content of nickel is Z (wt%).

47. (new) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, and the balance being copper and unavoidable impurities,

wherein $X + 5Y \leqq 50$, assuming that the content of zinc is X (wt%) and the content of tin is Y (wt%).

48. (new) A copper base alloy essentially consisting of:

8 to 45 wt% of zinc;

0.2 to 12.0 wt% of tin;

80 to 1000 ppm of carbon;

one or more elements which are selected from the group consisting of 0.01 to 3.0 wt% of silicon, 0.01 to 0.3 wt% of nickel, 0.01 to 5.0 wt% of iron, 0.01 to 5.0 wt% of chromium, 0.01 to 2.5 wt% of cobalt, 0.001 to 4.0 wt% of bismuth, 0.05 to 4.0 wt% of lead, 0.01 to 2.0 wt% of magnesium, 0.01 to 0.5 wt% of phosphorus, 0.01 to 0.1 wt% of calcium, 0.01 to 0.1 wt% of yttrium, 0.01 to 0.1 wt% of strontium, 0.01 to 1.0 wt% of beryllium, 0.01 to 0.5 wt% of zirconium, 0.1 to 3.0 wt% of niobium, 0.1 to 3.0 wt% of vanadium, 0.1 to 3.0 wt% of hafnium, 0.1 to 3.0 wt% of molybdenum and 0.1 to 3.0 wt% of tantalum, and

the balance being copper and unavoidable impurities,

wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the total amount of said one or more elements is Z (wt%).

49. (new) A copper base alloy essentially consisting of:

8 to 45 wt% of zinc;

0.2 to 12.0 wt% of tin;

80 to 1000 ppm of carbon;

one or more elements which are selected from the group consisting of 0.01 to 3.0 wt% of silicon, 0.01 to 0.3 wt% of nickel, 0.01 to 5.0 wt% of chromium, 0.01 to 2.0 wt% of magnesium and 0.0005 to 0.5 wt% of boron; and

the balance being copper and unavoidable impurities,

wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$,

assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the total amount of said one or more elements is Z (wt%).

50. (new) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, 0.01 to 3.0 wt% of silicon, and the balance being copper and unavoidable impurities,

wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the content of silicon is Z (wt%).

51. (new) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, 0.01 to 2.0 wt% of magnesium, and the balance being copper and unavoidable impurities,

wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the content of magnesium is Z (wt%).

52. (new) A copper base alloy essentially consisting of 8 to 45 wt% of zinc, 0.2 to 12.0 wt% of tin, 80 to 1000 ppm of carbon, 0.01 to 0.3 wt% of nickel, and the balance being copper and unavoidable impurities,

wherein $X + 5Y + 4Z \leqq 50$, $X + 4Z \leqq 50$, and $5Y + 4Z \leqq 45$, assuming that the content of zinc is X (wt%), the content of tin is Y (wt%) and the content of nickel is Z (wt%).